## ABSTRACT OF THE DISCLOSURE

[0061] A method and system for type demotion of expressions and variables by bitwise propagation is disclosed. In one embodiment, a method, comprises determining when an operation on a larger data type may be replaced by the operation on a smaller data type having a reduced precision, wherein the operation is contained in code associated with a language implementation system; and replacing the operation on the larger data type by the operation on the smaller data type.